

U. S. DEPARTMENT OF AGRICULTURE--FOREST SERVICE
PACIFIC SOUTHWEST FOREST AND RANGE EXPERIMENT STATION
Division of Forest Insect Research

FOREST INSECT CONDITIONS
MENDOCINO GAP, COVELO DISTRICT
MENDOCINO NATIONAL FOREST

INTRODUCTION

On April 11, 1960 R. E. Lang, from the supervisor's office, Mendocino National Forest, contacted the Experiment Station in regard to heavy infestations of ips beetles in wind and snowbroken ponderosa pine. The infestations were reported under detection report No. 271-60. The area affected lies approximately 2 miles south of Mendocino Gap on the Covelo District. Eighty acres are U. S. Government owned while forty acres are privately owned. On April 12 arrangements were made for a survey of the problem by Station entomologists, B. E. Wickman and C. J. DeMars. Their examination was made with the help of R. E. Lang and W. J. Bradley, Covelo District TMA, on April 14.

CONDITIONS OBSERVED

The snowbreakage occurs in stands of pole-size ponderosa pine located in Secs. 10&11, T22N, R10W, Mt. Diablo meridian as shown on the attached map. There were from 1 to 50 broken tops per acre in this area. Most of the trees were broken off below the crown so that only the stems are left, but in some only part of the crown was broken leaving stems with 2 to 10 green limbs. As to be expected, the breakage occurred for the most part in groups, one pile containing about 50 tops. In each pile examined, at least some tops had been attacked by the California five-spined pine ips, Ips confusus Lec. In most instances all partially exposed tops had been heavily attacked. Density of attack ranged from 6 to 24 entrances per square foot of bark surface. The galleries were nearly complete with from 6 to 9 eggs per linear inch. None of the eggs had hatched. No evidence of parasitism or predation was found.

Several small groups of standing merchantable trees in the area were observed which were infested by the western pine beetle, Dendroctonus brevicornis Lec. Although the bark on these trees had been heavily flaked by woodpeckers, brood density was still 5 to 10 per square foot. About 20 percent of the brood had pupated, the remainder were mature larvae. A few coleopterous predators were found beneath the bark. Snags with some remaining limbs, which resulted from snowbreakage in previous years, had been attacked by the western pine beetle, but had been abandoned by the time of this survey.

DISCUSSION

Slash resulting from April 1959 logging operations on adjacent privately owned land, appeared to have produced enough ips beetles to infest and kill some standing trees in the area last summer. With the presence of these beetles,

it is to be expected that this extensive snowbreakage would be attacked. The threat of subsequent group loss in the green stand from ips beetles that will develop in this material and attack during the summer, may be somewhat less than otherwise would be expected because of the above-normal rainfall for the past month. However ips beetles are very abundant and extensively distributed throughout the area. This may lead to some top-killing. The western pine beetle seems to be numerous enough in the area to breed in top-killed pines and also to breed in the standing snags which still have a few limbs to keep them green. Treatment of the broken material and standing infested trees should help to prevent further damage in the green stand. Periodic check of snags should be made to detect western pine beetle buildup.

Treatment of western pine beetle-infested trees should be concluded by April 29 and treatment of ips-infested slash should be completed by May 20.

April 21, 1960
Berkeley, Calif.

C. J. DeMars,
Entomologist

Attachment

BIOLOGICAL EVALUATION REPORT MAP

Location: Mendocino Gap

Date: April 14, 1960

N.F./ Co. Covelo Dist., Mendocino N.F.

Compiler: G.J. DeMars



Scale

3" = 1 mile

Map Area

(4 sections)

Meridian:

Mt. Diablo

Township:

22 N

Range:

10 W

Sections:

10 & 11